

NPIC Reports

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Approved For Release 2003/12/22 : CIA-RDP78T04759A000200010020-3

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6 July 1960

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06-07-60

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MEMORANDUM FOR: [REDACTED] Officer,
Office of Research and Reports

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ATTENTION: [REDACTED]

SUBJECT: Zaporozhye (USSR) Aircraft Engine Plant, No. 478.

REFERENCE: Requirement No. ER/E/R20/60
PIC Project No. P 119-60Declass Review
by NIMA/DOD

This inter-office memorandum is in answer to Requirement ER/E/R20/60 in which photographic intelligence is requested on Zaporozhye Aircraft Engine Plant No. 478, Zaporozhye, USSR.

It is believed that USAF Detailed Photo Intelligence Report, No. T60-15, dated April 1960 essentially fulfills the above requirement. Photographic intelligence officers of CIA concur in the general findings of the above report with the exception of the following specific points:

1. Dimensions of Annotation 7 should be 280' x 85' (reported 200' x 285').
2. Dimensions of Annotation 3 should be 1450' x 320' (reported 2050' x 320').
3. Dimensions of Annotation 11 should be 365' x 165' (reported 420' x 250').
4. The southern half of Annotation 9 contains six pairs of L-type engine test cells. Each pair measures 195' x 50' with the exhaust tower for each cell measuring 40' x 20'. With the exception of a slightly longer length, these cells resemble very closely the new engine test cells at Aircraft Engine Plant No. 24, Kuybyshev, USSR. A wall approximately 35 feet from the intake ends of the cells obscures the intake ends from observation from the remainder of the plant.
5. Although no rolling stock could be detected and the quality of the photography was too poor to identify rail tracks, certain stage alignments suggests the probability that the rail spur reported in the referenced Attache reports still exists. The spur enters the plant area through an angled gate in the perimeter wall near the midpoint of the eastern edge of Annotation 3. The spur continues around the northern end of the plant area.

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DATE: 16 JUN 1960
CIA-RDP78T04759A000200010020-3
2003 RELEASE UNDER E.O. 14176

CONTAINS SENSITIVE INFORMATION

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REFERENCES:

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Maps: USAF Target Movie, Series 16, OSA-0044, 10M, June 1950, 1:10,000. (SICR/L)

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Collateral: Mr, Attache Moscow, USSR, [redacted]
11-19 March 1957. (SICR/L)

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Mr, Attache Moscow, USSR, [redacted]
3 Jan 1956. (CONFIDENTIAL).

Af Intelligence Center, OFB No. T-60-1,
Zaporozhye Engine Aircraft Plant, No. 476,
April 1960

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[redacted]
Chief, Photographic Analysis Division, PIC

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IB/PAD-13/60
7 July 1960

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MEMORANDUM FOR: [REDACTED] Officer,
Office of Research and Reports

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ATTENTION : [REDACTED]

SUBJECT : Kuybyshev (USSR) Aircraft Engine Plant, "Frunze" 24.

REFERENCE : Requirement No. RR/E/R75/59
PIC Project No. P 374-59

It is believed that [REDACTED]
 dated 6 April 1960, USAF Photo Intelligence Brief No. TB 60-9, dated February 1960, and USAF Photo Intelligence Report, No. T60-11, dated April 1960, essentially fulfill the above requirement. Photographic intelligence officers of CIA concur in the general findings of the above reports with the exception of the following specific points.

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1. Dimensional differences were detected in certain annotated items as shown below:

<u>Annotation</u>	<u>CIA Analyst</u>	<u>USAF Report</u>
[REDACTED]	[REDACTED]	[REDACTED]

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4	4	1300' x 355'	1260' x 370'	[REDACTED]
5	5	1300' x 600'	1260' x 600'	[REDACTED]
8	11	515' x 80'	450' x 65'	490' x 70'
		605' x 240'	510' x 200'	560' x 230'
		605' x 120'	510' x 100'	560' x 120'
9	14	515' x 105'	435' x 85'	480' x 100'
10	13	515' x 105'	435' x 85'	480' x 105'
11	15	300' x 80'	260' x 70'	[REDACTED]
13	26	80' x 75'	65' x 60'	[REDACTED]
15	1	345' x 200'	330' x 190'	300' x 190'
27	30	270' x 110'	350' x 110'	[REDACTED]
25	6-7	950' x 370'	920' x 370'	910' x 350'
		230' x 125'	230' x 125'	[REDACTED]
		230' x 80'	230' x 80'	[REDACTED]

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2. In Annotation 25 [] the intake and exhaust configurations of the most northerly pair of cells differ slightly from the remaining test cells. One L-shaped pipe approximately five feet in diameter is located on the intake side of each cell in this northern pair. The overall exterior dimensions of the exhaust towers of this northern pair are approximately [] each, compared to the dimensions of the remaining exhaust towers of [] each. The height of the northern pair of exhaust towers is slightly less (barely perceptible on the small photography) than the remaining towers. CIA confirms the existence of 12 completed test cells in pairs and two more pairs under construction as reported [] US/F PI Report rather than six test cells completed and two under construction as reported by the US/F PI Brief.

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3. CIA cannot confirm Annotation 28 [] as a possible vertical rocket test stand, although the structures have some characteristics of a cold-flew test unit. It is felt necessary to temper these possibilities somewhat by reporting the following observations:

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a. Although the area is secured from the remainder of the plant, the extent of the secured area (approximately 210' x 165') appears rather small for any major component testing.

b. No fuel storage tanks are discernible within the enclosure. Three tank-like objects are stored along the opposite side of the main road which passes by the enclosure, but there is no evidence that these possible tanks may be moved into the enclosure.

c. The possible control building appears to be in dangerous proximity to the test stand.

d. Unless the area is still under construction, the lack of test support facilities would tend to preclude the possibility of this area being used for rocket testing.

e. The possible exhaust deflection pit appears too straightsided for deflecting gases away from the tower and control building. A collection pit may be a more likely function for this excavation.

4. It is deemed necessary to add the following observations to satisfy more fully the original CIA requirement:

a. In addition to the solid wooden fence around the perimeter of the plant, a possible wire fence runs parallel about [] inside the perimeter fence. The two fences are separated by a patrol road. The only other security measures of significance are those around Annotation 28.

b. The southern half of the plant area is served by several rail spurs with only one spur penetrating as far north as Annotation 24. No unusual rail cars were noted. The following rolling stock was noted within the plant:

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- (1). Two mobile railroad jib cranes.
- (2). Three switching locomotives.
- (3). Six 2-axle tank cars.
- (4). Two possible 4-axle tank cars.
- (5). Five 2-axle gondolas
- (6). One 2-axle flat car

The following photogrammetric techniques were used by CIA analyst for obtaining the photo scale and measurements used in this memorandum:

1. Positive transparent stereograms with a contact scale of 1:23,500 were used.
2. Photo scale was determined by averaging scales obtained by using USAF Target Mosaics and Altitude Correction Chart for [REDACTED]
3. Measurements were made on a [REDACTED] Stereo Microscope, using 12 and 25-power optics. These measurements were rounded off to nearest 5 feet.
4. Usually where measurements differed by less than 20 feet, [REDACTED] measurements were accepted.
5. CIA analyst's measurements were subsequently checked by Technical Intelligence Services Division using a [REDACTED] comparator and Digital computer with the following parameters:

- a. Altitude 70.270'
- b. Tilt 0° 39'
- c. Focal length 314.4 mm.

REFERENCES:

[REDACTED]

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Maps: ACIC, USAF Target Mosaic, Series 10, 0165-0024-10MA, July 1951 (SECRET)

Collateral: US Air Force Intelligence Center, Photo Intelligence Brief, N- TB 60-9, February 1960 (TOP SECRET)

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Chief, Photographic Analysis Division, PIC

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